



03-17-05



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/038,760
Applicants : Anthony A. Sauvé and Vern L. Schramm
Filed : January 4, 2002
Art Unit : 1623
Examiner : Traviss C. McIntosh III
Docket No. : 96700/725
Customer No. : 1912

Confirmation No. 6299

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Dated: New York, New York
March 16, 2005

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PTO/SB/08B (08-03)

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Complete if Known

Sheet 1 of 4	Application Number	10/038,760
	Filing Date	January 4, 2002
	First Named Inventor	Anthony A. Sauvé
	Art Unit	1623
	Examiner Name	Traviss C. McIntosh III
	Attorney Docket Number	96700/725

NON PATENT LITERATURE DOCUMENTS

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	30	Ashamu et al., "Roles for adenosine ribose hydroxyl groups in cyclic adenosine 5'-diphosphate ribose-mediated Ca ²⁺ release." Biochemistry, 36:9509-9517 (1997).	
	31	Bailey et al., "Cyclic aristeromycin diphosphate ribose: a potent and poorly hydrolysable Ca ²⁺ -mobilising mimic of cyclic adenosine diphosphate ribose. FEBS Lett., 379:227-230 (1996).	
	32	Clapper et al., "Pyridine nucleotide metabolites stimulate calcium release from sea urchin egg microsomes desensitized to inositol trisphosphate." J. Biol. Chem., 262:9561-9568 (1987).	
	33	Fernandez et al., "Analysis of the distribution of human CD38 and of its ligand CD31 in normal tissues." J. Biol. Regul. Homeostatic Agents, 12:81-91 (1998).	
	34	Fox et al., "Nucleosides. XII. Direct synthesis of 2'-deoxycytidine and its alpha-anomer." J. Am. Chem. Soc., 83:4066-4070 (1961).	
	35	Handlon and Oppenheimer, "Substituent effect on the pH-independent hydrolysis of 2'-substituted nicotinamide arabinosides." J. Org. Chem., 56:5009-5010 (1991)	
	36	Hara-Yokoyama et al., "Complex gangliosides as cell surface inhibitors for the Ecto-NAD ⁺ glycohydrolase of CD38." Biochemistry, 40:888-895 (2001).	
	37	Howard et al., "Formation and hydrolysis of cyclic ADP-ribose catalyzed by lymphocyte antigen CD38." Science, 262:1056-1059 (1993).	
	38	Itoh et al., "Molecular cloning of murine BST-1 having homology with CD38 and aplysia ADP-ribosyl cyclase." Biochem. Biophys. Res. Commun., 203:1309-1317 (1994).	
	39	Jackson and Bell, "Isolation of a cDNA encoding the human CD38 (T10) molecule, a cell surface glycoprotein with an unusual discontinuous pattern of expression during lymphocyte differentiation." J. Immunol., 144:2811-2815 (1990).	

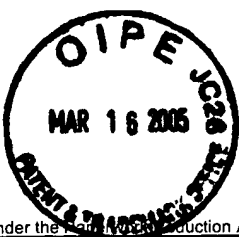
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Sheet	2	of	4	Attorney Docket Number	96700/725

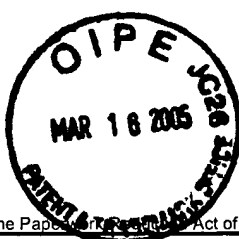
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	40	Jiang et al., "Membrane-permeant esters of phosphatidylinositol 3,4,5-trisphosphate." J. Biol. Chem., 273:11017-11024 (1998).	
	41	Kaisho et al., "BST-1, a surface molecule of bone marrow stromal cell lines that facilitates pre-B-cell growth." Proc. Natl. Acad. Sci. USA, 91:5325-5329 (1994).	
	42	Kang et al., "Synthesis and biological activity of bis(pivaloyloxymethyl) ester of 2'-azido-2'-deoxyuridine 5'-monophosphate." Nucleosides & Nucleotides, 17:1089-1098 (1998).	
	43	Kato et al., "Regulatory role of CD38 (ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase) in insulin secretion by glucose in pancreatic beta-cells." J. Biol. Chem., 270:30045-30050 (1995).	
	44	Khoo and Chang, "Localization of plasma membrane CD38 is domain specific in rat hepatocyte." Arch. Biochem. Biophys., 373:35-43 (2000).	
	45	Kruppa et al., "Bioactivatable derivatives of 8-substituted cAMP-analogues." Bioorg. Med. Chem. Lett., 7:945-948 (1997).	
	46	Lee and Aarhus, "ADP-ribosyl cyclase: an enzyme that cyclizes NAD ⁺ into a calcium-mobilizing metabolite." Cell Regul., 2:203-209 (1991).	
	47	Lee and Aarhus, "Fluorescent analogs of NAADP with calcium mobilizing activity." Biochem. Biophys. Acta., 1425:263-271 (1998).	
	48	Li et al., "Membrane-permeant esters of inositol polyphosphates, chemical syntheses and biological applications." Tetrahedron, 53:12017-12040 (1997).	
	49	Mizuguchi et al., "Neuronal localization of CD38 antigen in the human brain." Brain Res., 697:235-240 (1995).	

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	50	Munshi et al., "Characterization of the active site of ADP-ribosyl cyclase." J. Biol. Chem., 274:30770-30777 (1999).	
	51	Normark et al., "How neutrophils recognize bacteria and move toward infection." Nat. Med., 7:1182-1184 (2001).	
	52	Oppenheimer and Handlon, "Mechanism of NAD-dependent enzymes." In The Enzyme, Sigman, D.L. Ed., Academic Press Inc.: San Diego CA, Chapter 10, 20:453-505 (1992).	
	53	Partida-Sanchez et al., "Cyclic ADP-ribose production by CD38 regulates intracellular calcium release, extracellular calcium influx and chemotaxis in neutrophils and is required for bacterial clearance in vivo." Nat. Med., 7:1209-1216 (2001).	
	54	Rusinko and Lee, "Widespread occurrence in animal tissues of an enzyme catalyzing the conversion of NAD ⁺ into a cyclic metabolite with intracellular Ca ²⁺ -mobilizing activity." J. Biol. Chem., 264:11725-11731 (1989).	
	55	Sato et al., "Inhibitor peptide SNP-1 binds to a soluble form of BST-1/CD157 at a 2:2 stoichiometry." Eur. J. Biochem. 264:439-445 (1999).	
	56	Sato et al., "Novel peptide inhibitor of ecto-ADP-ribosyl cyclase of bone marrow stromal cell antigen-1 (BST-1/CD157)." Biochem. J., 337:491-496 (1999).	
	57	Sethi et al., 7-Deaza-8-bromo-cyclic ADP-ribose, the first membrane-permeant, hydrolysis-resistant cyclic ADP-ribose antagonist." J. Biol. Chem., 272:16358-16363 (1997).	
	58	Sleath et al., "Pyridine coenzyme analogues. 3. Synthesis of three NAD ⁺ analogues containing a 2'-deoxy-2'-substituted nicotinamide arabinofuranosyl moiety." J. Org. Chem. 56:3608-3613 (1991).	
	59	States et al., "Similarities in amino acid sequences of aplysia ADP-ribosyl cyclase and human lymphocyte antigen CD38." Trends Biochem. Sci., 17:495-497 (1992).	

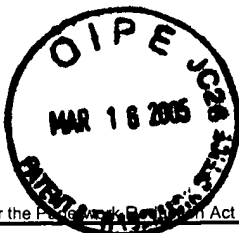
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	60	Sun et al., "CD38/ADP-ribosyl cyclase: a new role in the regulation of osteoclastic bone resorption." Cell. Biol., 146:1161-1171 (1999).	
	61	Wall et al., "Inhibition of the intrinsic NAD ⁺ glycohydrolase activity of CD38 by carbocyclic NAD analogues." Biochem. J., 335:631-636 (1998).	
	62	Walseth and Lee, "Synthesis and characterization of antagonists of cyclic-ADP-ribose-induced Ca ²⁺ release." Biochem. Biophys. Acta., 1178:235-242 (1993).	
	63	Walseth et al., "Identification of cyclic ADP-ribose-binding proteins by photoaffinity labeling." J. Biol. Chem., 268:26686-26691 (1993).	
	64	Wong et al., "Cyclic 3-deaza-adenosine diphosphoribose: a potent and stable analog of cyclic ADP-ribose." Biochem. Biophys. Acta, 1472:555-564 (1999).	
	65	Wu et al., "Absciscic acid signaling through cyclic ADP-ribose in plants." Science, 278:2126-2130 (1997).	
	66	Yamamoto-Katayama et al., "Crystallographic studies on human BST-1/CD157 with ADP-ribosyl cyclase and NAD glycohydrolase activities." J. Mol. Biol., 316:711-723 (2002).	

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